FOREIGN AGRICULTURE

AUGUST
1957

U.S. Ag. Attaché in Japanese rice nursery

West German Trade Policy
Fertilizer and the World Food Supply
A Look at Australia's Cotton Industry
How Seed Oils Fare in Olive Oil Markets

UNITED STATES DEPARTMENT OF AGRICULTURE • FOREIGN AGRICULTURAL SERVICE

FOREIGN AGRICULTURE

VOL. XXI . . No. 8 . . AUGUST 1957

To report and interpret world agricultural developments.

Cotton Is King Of Export Crops

The preliminary figures are in, and they show clearly that cotton was the biggest single export crop of the United States in the fiscal year July 1956-June 1957.

The record total of $1,020 million was a satisfying gain of 206 percent over the previous year, when cotton had dropped to fifth among U.S. agricultural exports.

The main reasons for cotton's export upsurge was the Government's new program offering U.S. Government stocks on the world market on a competitive bid basis, depleted stocks abroad, and high-level economic activity in cotton-consuming countries.

Cotton is the largest U.S. farm crop. It occupies a prominent place in agricultural and industrial research, as the quest goes on to produce an even better fiber, at lower cost, and with even more varied use.

Cotton appears to be more than holding its own around the world in the new competition between natural fibers and man-made fibers. The U.S. cotton industry, with foreign cooperators, is carrying on a vigorous campaign in cotton's behalf. It has been said that if foreign use of cotton could be increased by only two pounds per person—the equivalent of a bedsheet—the new market thus created could alone absorb over half the U.S. cotton crop.

Cover Photograph

U.S. Assistant Agricultural Attaché Rollefson checks on progress of Japan's rice crop with Japanese farmer Jiro Sugizaki (right). Also present (left to right) are County Agent Yabumoto and Agricultural Specialist Takeshita of the American Embassy.

In This Issue

	Page
West German Policy on Foreign Agricultural Trade	3
The Seven Wonders of Shoyu Sauce	4
Yugoslavia Plans to Up Farm Output and Cut Imports	5
A Look at Australia's Cotton Industry	8
What the World Fertilizer Situation Means to Future Farm Production	9
How Our Seed Oils Fare in the Olive Oil Markets	12
Is U.S. Keeping Its Costa Rican Market?	14
Acquainting Buyers with U.S. Wheat	15
Argentina Improves Its Trade Balance	16
New Bibliography: European Cooperation in Agriculture	17
U.S. Exhibit Wins Awards at Barcelona	17
People in the News	18
Trading Post	19

Editor: Alice Fray Nelson

Advisory Board:

W. A. Minor, Chairman; Gustave Burmeister, F. L. Erhardt, Kenneth W. Olson, Paul E. Quintus, Gerald E. Tichenor

Foreign Agriculture is published monthly by the Foreign Agricultural Service, United State Department of Agriculture, Washington 25, D. C. Use of funds for printing this publication has been approved by the Director of the Bureau of the Budget (October 11, 1956). Yearly subscription rate is $1.50, domestic, $2.00, foreign; single copies are 15 cents. Orders should be sent to Superintendent of Documents, Government Printing Office, Washington 25, D. C.

West German Policy

. . . on foreign agricultural trade

Part I*

IN WEST GERMANY the United States has one of its most genuine commercial markets—a market whose imports are strongly determined by ordinary business considerations of price, quality, and commercial convenience. Yet, policy factors have great influence in the marketplace. The imports of some agricultural products are still under monopoly control, and others are not yet fully freed from quantitative restrictions if imported from the dollar area.

West Germany depends heavily on imported farm products despite its own large agricultural production. Of the country's total import trade in 1956—around $6.5 billion—45 percent was in products of agricultural origin.

The United States delivers about 10 percent of these agricultural products. In its agricultural export trade, third or fourth place has been held over the past years by West Germany, which takes from $200 million to $300 million worth a year. Most important U.S. exports to this market are raw cotton, wheat and coarse grains, lard and other fats and oils and oilseeds, and tobacco.

By comparison, U.S. agricultural imports from Germany are negligible. They consist mainly of such specialties as canned meat, beer, wine, and hops.

Policy Goals

Domestic policies of price and market regulation are the main instruments German agriculture uses to attain the general goals of its policy. Therefore, these goals will be elaborated on in part II of this article. They do, however, also contain an important element of commercial policy. This arises from the argument that German agricultural trade policy should assist German industry, which cannot thrive without export markets. For industrial prosperity is the basis for agricultural prosperity in Germany. Thus, monopoly-like control over imports of certain agricultural products is exercised by import agencies, in part to direct German purchases to countries that in turn are, or promise to be, markets for products that Germany wishes to export.

Regulation of Foreign Trade

Tariffs.—Germany is a member of GATT and does not maintain a system of preferential tariff rates. Only a few tariffs on agricultural products like coffee, tea, tobacco are of the revenue type. There exists, in addition, an excise tax on these products (also on beer, champagne, sugar, alcohol).

In compliance with a principle of long standing, found in most advanced industrial countries, Germany has no tariffs on agricultural raw materials, such as raw cotton, raw wool, or oilseeds—products important for industry and not produced at home. Industrial protection is implied in the existence of import tariffs on vegetable oil (despite the absence of tariffs on oilseeds), of a higher import tariff on refined lard than on crude lard—or on refined oils compared with crude oils, and the like. On many foodstuffs produced in West Germany, tariffs are fairly high.

Quantitative Controls.—The German economic situation has improved remarkably since the currency reform in 1948, and Germany has accumulated very substantial gold and dollar balances as well as other foreign exchange holdings and claims in the European Payments Union. Hence, the remaining quantitative controls on imports of agricultural products are controls for the purpose of agricultural protection and market regulation and cannot be justified by balance of payments considerations.

A special feature of the German market and import regulation is the existence of four import and stocking agencies—one each for cereals and feedstuffs, for sugar (import agency only), for fats (which may also handle milk and milk products), and for livestock and meat.

The main purpose of these import and stocking agencies is to regulate and stabilize markets for the products indicated. This regulation includes import controls—to prevent importing quantities that would impair the chances of completely disposing of the marketable domestic supply of the products concerned at desired producer prices. It also includes equalization of import and domestic prices—raising or lowering the former to the level desired for the corresponding domestic produce. The agencies have wide powers of intervention in the market, and also resort to stocking operations as may be required by a given market situation or by overriding policies of the government. For cereals, sugar, and meat the Federal Ministry of Agriculture, under the law, must prepare supply programs at the beginning of each marketing year, and it is on these programs that import and stocking operations must be based.

The products most important from the United States point of view that are under the control of such import and stocking agencies are wheat, corn and grain sorghum, lard, refined edible oils, butter, and meat and meat products. The agencies—on the basis of the import and supply plan and taking bilateral trade arrangements into account—can direct German purchases toward any country they wish to favor, or where conditions are most favorable for a purchase. It should be noted, however, that even under the present system the United States has had large

---

Prepared in the European Analysis Branch, Foreign Agricultural Service, which acknowledges the useful suggestions made by the Bonn office of FAS.

*Part II will appear in *Foreign Agriculture* for September.

and favorable shares in total German imports of grains and lard, and there has been no discrimination in fact against the United States as far as these products are concerned. It is the principle rather than the present practice of the import agencies that is objectionable from the United States point of view.

The products liberalized for import from the dollar area are raw cotton, tobacco, oilseeds, vegetable and animal fats for technical use, canned grapefruit, dried fruits (except raisins) and nuts, tomato juice and powder, eggs without shell, and egg yolks. These products can, therefore, be imported without quantitative restriction or discrimination of any kind. Quantitative restrictions have also been removed from a few other products of minor actual or potential interest to American agriculture, such as canned olives, fruit preparations in barrels without sugar or alcohol, poultry fat, and poultry liver.

On the other hand, such products as edible vegetable oils, citrus fruit other than canned grapefruit, raisins, and fresh apples and pears still remain under license or exchange control. These products can only be imported under licenses issued by the Foreign Trade Agency for Food and Agricultural Products—which licenses all those products that have not been freed from quantitative restrictions and do not fall under the control of one of the import and stocking agencies.

Since most agricultural products other than those controlled by the import and stocking agencies have been freed from quantitative restrictions if imported from another member country of the Organization for European Economic Cooperation, the discrimination against imports from the dollar area is obvious.

Bilateral Agreements and Clearing Unions.—Germany has bilateral trade agreements with many other countries, both in Europe and outside Europe. They are to facilitate trade between Germany and the country concerned. These agreements have decreased in importance as Germany's economic strength has increased over recent years and as both agricultural and in-

(Continued on page 19)

The Seven Wonders of Shoyu Sauce

When someone is proud of his product, we rather expect him to extoll its virtues. In that light, we offer space to our Japanese friend, Mr. Komiya, for his glowing account of "soy sauce."

By Masashi Komiya

Managing Director
Japan Shoyu Association

A sauce with a 1,200-year history is one of the reasons why Japan has long been a leading world market for soybeans. The sauce is shoyu, or soy sauce, made from soybeans and wheat. It appears on the table of every family in Japan—rich and poor alike—and is exported all over the world.

Why has shoyu become an integral part of the Japanese diet? The largest single reason is that it has long been used as seasoning. A large quantity goes into the cooking of soybean products, noodles, and vegetables.

With apologies to the author of the recent motion picture illustrating the seven wonders of the present world, I would like to tell you about the seven wonders of shoyu, or soy sauce.

Wonder No. 1: In spite of its salt content of 18 percent, shoyu does not taste excessively salty. By contrast, when a soupspoonful of sea water, which contains a mere 3 percent of salt, is swallowed, the salty taste is almost unbearable. It is estimated that the average Japanese obtains one-third of the salt he needs from shoyu.

Wonder No. 2: Shoyu has a high germicidal action. Professors F. Uji-ie and Yokoyama of the Micro-Organism Laboratory, Faculty of Medicine of the Tokyo University, have shown that various micro-organisms which are the bane of human beings are destroyed in an extremely short time in shoyu.

Wonder No. 3: Shoyu is a nutriment for the heart. Scientists say this is due to the tyrosine content of shoyu. Some even go so far as to say that it is because the Japanese consume shoyu regularly that they are relatively strong in such sports as long-distance running, wrestling, and table tennis, which put a heavy load on the heart, or that the incidence of heart diseases among them is low compared to that among people of other countries.

Wonder No. 4: Shoyu is made solely by the power of micro-organisms. Absolutely no chemicals are used in the processing; the breakdown of the soybeans and wheat is accomplished by the action of yeast organisms and appropriate bacteria. The protein of soybeans becomes nitrogen in amino-acid form and the carbohydrate of wheat is converted into alcohol and sugar. The result is the special flavor of shoyu. If soybeans are to be broken down by hydrochloric acid, they must be boiled for 7 hours in the acid, which has been heated to 200°C.

Wonder No. 5: Shoyu contains tryptophane, a rare substance indispensable for the growth of the human body. This substance occurs in extremely small quantities, but is of utmost importance. Although the Japanese people did not eat any meat until about a century ago, the bodily build of the people before that time was not inferior in any way to that of the present-day Japanese. One reason was probably the tryptophane in shoyu.

Wonder No. 6: Shoyu combines the tastes of salt, sugar, and vinegar, and blends them harmoniously as if in a symphony of flavors. Thus, on many Japanese dining tables, salt, sugar, and vinegar are never provided.

Wonder No. 7: Shoyu has been on the Japanese dining table for 1,000 years as a commodity of indispensable importance for daily life.

Background

Japan, the leading foreign market for U.S. soybeans, imported over 21 million bushels of them in the last marketing year and may take as many this year. Japan expects to produce 1,527,000 tons of soy sauce in 1957, from about 370,000 tons of beans and meal (in terms of beans). Of the U.S. beans, 10 million bushels will go into soy sauce.

Hybrid corn on agricultural high school farm at Valjevo. Yugoslavia is relying on hybrids to help meet the goal it set for corn recently: A 50-percent increase in the next 6-7 years.

Photos by Harold L. Koeller

Yugoslavia Plans To Up Farm Output And Cut Imports

By HAROLD L. KOELLER
U.S. Agricultural Attaché
Belgrade, Yugoslavia

YUGOSLAVIA IS TRYING to cut its agricultural imports and get back on an export footing for some products. A new agricultural policy, adopted late this spring, is the instrument it plans to use.

That policy calls for a 50-percent increase in 6-7 years for the two main crops—wheat and corn—and for livestock. Also, its goal is for production of other crops to be upped in about the same measure, with emphasis on such industrial crops as sugar beets, oilseeds, tobacco, and fibers. And to these, more acreage will be devoted.

Yugoslavia was a surplus-producing agricultural country before the war that exported livestock products, feed grains, and wheat to Central and West Europe. Now, it is forced to import up to 50 million bushels of wheat, 80 million pounds of fats and edible oils or oilseeds, about 100,000 tons of sugar, and more than 200,000 bales of cotton.

Even with the stimulus provided by the new policy, the Yugoslavs cannot hope to produce more than a small proportion of their cotton requirements, but they do plan to increase output of other crops enough to eliminate most of the present agricultural imports and permit larger exports of livestock products, tobacco, hops, fruits, and vegetables.

The government hopes to achieve the goals mainly through greater productivity. Yields per acre of wheat and corn are to be increased through use of more machinery—which will permit better soil preparation and more timely field operations—and much more fertilizer, plus general use of improved seed, especially hybrid seed corn, and general adoption of other modern farm practices. In this way, Yugoslav agriculture will try to increase output even in years with insufficient rainfall. Part of the blame for low agricultural production since the war can be attributed to the droughts that have occurred every other year beginning with 1950.

The government has given a key role in the new plans to state and collective farms (collectives are called peasant work cooperatives in Yugoslavia), especially to the general agricultural cooperatives, many of which have long existed as trade cooperatives. Admitting quite frankly that the forced collectivization of agriculture failed several years ago, the policy

Yugoslav peasant cultivating corn in rich Vojvodina plain.

In Slovenia, most grain is threshed like this, with threshing machines. Elsewhere threshing methods range from combine to tramping by livestock.

This horse brought $167 at a farmer's market in Serbia. Stock furnishes most farm power, but tractors are increasing on "socialized" farms.

stresses that "socialization of the countryside" will be brought about by persuading private farmers to accept the general agricultural cooperatives as organizers and directors of production. It will do so by demonstrating that their incomes will be increased. At the same time the private ownership of land will not be questioned.

At present, about 10 percent of the arable land of Yugoslavia is farmed by the "socialized" sector of agriculture and 90 percent by private peasants. In general the state and collective farms use more modern production techniques and often obtain higher yields per acre than do private farmers.

How to increase agricultural production is getting into the limelight because agriculture has been lagging behind other parts of the Yugoslav economy for several years, and agricultural policy has been either a failure or almost totally ineffective ever since forced collectivization. Not only have agricultural officials been keenly aware of the need for increasing production and for discovering a new, effective policy, but the highest officials, including President Tito, have publicly discussed agricultural problems during the past year. Most officials believe that the Yugoslav economy cannot develop further without a rapid, sharp increase in agricultural production.

The crux of the problem is that agricultural production has not increased above the prewar level but population has increased—by about 3 million. In addition, many rural people have migrated to cities as industrialization has grown. Thus more people depend on commercial supplies rather than on the output of small farms, producing mainly for home consumption. Too, the diet has gradually improved as eating habits—especially among people recently arrived in cities—have shifted to higher-quality foods—to wheat flour from corn meal, for example.

The need to import large quantities of food has been one of the major causes of the persistent Yugoslav foreign trade deficit that has kept the country's financial and trading position constantly in jeopardy. The unfavorable foreign trade balance has forced Yugoslavia to depend on foreign economic assistance in order to feed its population.

During 1956 the Federal People's Assembly directed that the Federal Executive Council prepare a plan for further development of the economy. Since agriculture was considered the main sector of the economy failing to increase production, the agricultural plan was given priority. After a relatively brief debate, the Assembly passed a resolution approving the general policy proposed by the Council.

The resolution states that to continue the transformation of Yugoslav agriculture from a backward state to a modern production plant requires continuous investments. These are possible only through "social" farms, since individual farmers with little land (limited by law to 24.7 acres and averaging 11.5 acres per farm), old-fashioned methods, low yields, and limited productive possibilities are unable to increase production substantially. This is the stated reason for emphasizing cooperative and state farms and seeking to get farmers to cooperate, without coercive action against private ownership of land.

The resolution states that, within the next 5 years, production should increase by 30 to 35 percent over the 1951-55 average. To achieve this the plan calls for an increase of 50 percent in the main grain-growing area and a doubling of the output of state farms. Public investment funds will be directed primarily to the "socialized" sector of agriculture. In addition, it will be supported by a favorable fiscal policy in an effort to make the state and cooperative farms the obviously leading production units which would serve as examples of the results obtainable from modern techniques. This policy also appears prompted by the desire to assure that the existing collectives become more successful than they have been. The planned increase in production requires, on the average, investments at double the rate provided by the 1957 Social Plan for agriculture.

The planned increase in production

Peasant couple hoe their sugar beets, Vojvodina. The country's new farm policy stresses production of such industrial crops as sugar beets and tobacco, and plans to devote more land to them.

Oriental-type tobacco on a Macedonian farm. Plans call for greater output to boost exports.

also requires the carrying out of capital and technical improvement. The major part of the drainage projects envisaged will be in the Vojvodina, and irrigation projects will be mainly there and in Macedonia. The number of tractors will be increased from the present 14,000 to about 40,000 with all the necessary complementary equipment. Fertilizer consumption should increase from the present level of 600,000 tons to 2,400,000 tons.

The 5-year plan is expected to be developed on national, Republic, and district levels. Meetings have already been held in various towns of the Vojvodina and Macedonia to explain the new policy to officials of state farms and cooperatives, and in some districts the plan has been presented to local officials in the presence of central-government officials.

Despite these efforts and others, it appears that the goals of the new policy may be somewhat overambitious. The expectation that Yugoslavia can become self-sufficient in wheat within 5 to 7 years seems beyond accomplishment, although considerable progress toward increasing yields may be expected. Higher production of other crops may be expected also, but it may not come as rapidly as planned unless private peasants can be won over to greater cooperation than now appears likely. Even then, there will be great difficulty in transforming private farms from relatively backward producing units to well-integrated parts of socialized large-scale producing units organized by the general agricultural cooperatives.

The goal of achieving self-sufficiency in wheat production may be criticized as being uneconomic for a country with a climate better adapted for corn. Increasing corn area and production would appear far more economic. That would permit increased livestock production and thus greater exports of livestock products and probably some exports of corn or other feed grains to Western European countries. These exports would earn the necessary foreign exchange to pay for wheat imports from countries that can produce the crop at low cost. These alternatives have come in for considerable discussion, both in agricultural circles and newspapers during the past year. Apparently the compromise was this: To increase wheat yields but not area sown. However, it seems doubtful that wheat self-sufficiency can be achieved on the present area. But this is not desirable or planned.

Professor Turk, head of Ljubljana University's agricultural faculty, examines frost-damaged olive nursery stock at the Koper farm experiment station.

Photos courtesy of Australian News and Information Service

Above, most of Queensland's cotton is picked by mechanical harvesters. *Left,* examining cotton bolls from experimental Northern Territory field.

A look at Australia's Cotton Industry

U.S.-Australian trade in textile fibers is a real two-way street. The Australians send us a good deal of wool; we send them a good deal of cotton. This spring Guy A. W. Schilling, FAS cotton marketing specialist, talked to cotton growers and spinners of the island-continent. Here are some of the things he found out.

By GUY A. W. SCHILLING
Cotton Division
Foreign Agricultural Service

WHEN I VISITED AUSTRALIA during a cotton survey trip this year, I was reminded of my first trip there, in 1941. At that time, Australia had 150,000 cotton spindles in operation. Today it has about 230,000, most of them still in the hands of two firms. What this increase represents is not the entry of new interests into the cotton industry, but the growth of old interests. I saw no new names among the spinners in Australia; they are still the same people that were in business in 1941, but they are operating on a larger scale.

Australia has only about 11 cotton mills. The Australian industry produces only a few types of finished cotton goods—mainly towels, sheets, pillowcases, drills, and a number of yarns for Australia's well-developed knitting industry. No shirtings or cotton prints—these are all imported.

This marketing year about 75 percent of the cotton used by the mills in Australia will come from the United States. The rest comes mostly from Pakistan and Mexico. In the past 3 marketing years, Australia has imported between 80,000 and 90,000 bales of cotton a year. The U.S. share of this has varied between 40 and 60 percent. Pakistan ranked second among Australia's suppliers until 1955, when Mexico moved into that position.

Local cotton supplies about 5 percent of mill requirements. Every mill must buy a certain percentage of its cotton locally, depending on the number of its spindles. The Australian industry, however, is not altogether satisfied with the quality of the local cotton. The spinners have no choice as to types; they must take what is available. And even if the quality were satisfactory, the quantity would be far from sufficient. In the last few years, production has averaged about 3,000 bales annually.

Australia has the potential to expand its cotton production. There is suitable land available, particularly in Queensland, provided cotton is grown in rotation with crops such as wheat, barley, sorghums, linseed, legumes, and forage crops. In time parts of New South Wales also, particularly newly irrigated areas coming into use, may be planted to cotton. In addition, there is a certain amount of technical "know how" which has increased over the years. At present, the Australians are growing some 10,000 acres of cotton, and in the past they have grown much more. There are, however, significant problems to be faced in any large expansion of cotton in Australia under present conditions. Chief among them is the capital requirement for special cotton machinery—a necessity for dryland cropping in Queensland because of climate and soil. Even under irri-

(Continued on page 14)

What the World Fertilizer Situation Means to Future Farm Production

By WILHELM ANDERSON
Foreign Agricultural Analysis Division
Foreign Agricultural Service

OVER THE PAST 20 years, fertilizer consumption has increased remarkably throughout the world. Total world consumption, excluding the USSR and Communist China, has gone up from 8.4 million metric tons of combined nitrogen, phosphoric acid, and potash in 1938 to 19.6 million tons in 1956, an increase of 133 percent. The disruption of fertilizer production in Europe and Japan, caused by World War II, was largely overcome by 1950, and thereafter production greatly exceeded prewar.

The increase in fertilizer consumption on a percentage basis has been fairly widespread throughout the major areas of the world. But on a tonnage basis the distribution is very uneven, with 86 percent of the 11.2-million-ton increase accounted for by Europe, the United States, and Japan.

How has increased fertilizer consumption affected world agricultural production? For the Free World as a whole it has helped production keep pace with population growth—both estimated now at 26 percent above prewar. In the industrialized countries of Western Europe, and in the United States and Japan, greater use of fertilizer has undoubtedly increased production very considerably. In the underdeveloped countries, however, the increases in production since the war have been effected more by improvements in irrigation, better cultural practices, and extended crop acreages. The tonnages of fertilizer applied in these countries have not been sufficiently large to increase overall production significantly. This is also true of India, where fertilizer consumption has increased rapidly in recent years.

Europe, the United States, and Japan are now using 87 percent of the world's consumed fertilizer on 34 percent of the world's arable land area. The remaining 13 percent of consumed fertilizers is being used on 66 percent of the world's arable land area. Here generally the yields are low, the countries underdeveloped, and the arable land per capita exceedingly small, making it difficult to generate capital for industrial development. This situation prevails for most of the Far East, the Middle East, and much of Africa and Latin America.

Europe occupies 14.6 percent of the world's arable area, excluding the USSR and Communist China, yet is using 48 percent of the world's consumed fertilizers. Nearly 60 percent of this consumption occurs in the eight Western European countries, where the yields are among the highest in the world. The Netherlands and Belgium are the highest consumers of fertilizer per arable acre. West Germany and the United Kingdom are heavy users too. Austria, France, Ireland, and Switzerland use considerably less.

Europe's fertilizer consumption has gone up from 3.1 million tons in 1938 to 5.4 million in 1956, with an average consumption for the above eight countries of 128 kilograms of the combined nutrients per arable hectare. This is a very high rate of consumption for a large area. Consumption of fertilizer in northern and southern Europe is less per arable hectare than in the West, averaging 91 kilograms in Scandinavia and 30 in the southern countries, including Italy.

Agricultural production in Europe, exclusive of the satellites, recovered rapidly after World War II. With Marshall Plan aid, it rose to about one-fourth above prewar in 1955-56. On a per capita basis, Europe's farm output is 10 percent above prewar.

It is difficult to measure how much of this increase is the direct result of increased fertilizer use. Agricultural technology generally has improved in Europe. Mechanization has increased greatly. Better seed stocks and better pest and disease controls have also contributed. Still it is highly probable that more extensive use of fertilizer has been the most important single factor in increasing crop production.

Will Europe increase its fertilizer consumption still further? This seems highly likely, especially among those countries whose present fertilizer use is greatly below that of the high users. The Southern European countries are consuming fertilizers at a lower rate per hectare than the entire United States. Austria, France, Sweden, and Finland are also relatively low consumers per hectare as compared with the Netherlands, Belgium, West Germany, and the United Kingdom.

Over the past 3 years Europe's consumption of the combined fertilizer nutrients has increased about 5 percent annually. Further increases will depend largely on government policy —especially policy on subsidies and prices. But world prices and the level of Europe's economic activity will also determine consumption.

North and Central America account for 34 percent of world fertilizer consumption. In this large area the United States—with 18.6 percent of the world's arable land—accounts for 32 of the 34 percent. Canada and Cuba are the only other consumers with any

sizable tonnage, and Canada accounts for most of the 2 percent.

The United States has increased its fertilizer consumption from 1.3 million metric tons of combined nutrients in 1938 to 6.3 million tons in 1956. Agricultural production in 1956-57 is estimated at 47 percent above prewar on about the same cropped acreage. Not all of this increase was brought about by increased fertilizer use. Improved seed stocks and better cultural practices have contributed significantly to increased yields. Improvements in the feeding and management of livestock and in the control and eradication of pests and diseases have also helped increase the productive efficiency of American farms. Nevertheless, the greatly increased use of fertilizer in the United States over the past 20 years has perhaps been the most decisive stimulant to yields.

As to the future: If the gross national product in the United States continues to grow uniformly at not less than 3½ percent a year and if returns to capital, management, and labor in commercial farms should be reasonably attractive compared to returns in other productive enterprises, we shall probably see a further retirement of small subsistence and marginal farms, further enlargement of commercial farms, the permanent retirement from crop production of marginal areas within such farms, a further shrinkage of the total cropped acreage, and an increase in fertilizer consumption of 3 to 5 percent a year over the next 20 years.

South America uses relatively little fertilizer. Although the percentage increase in recent years has been considerable—with Brazil, Chile, and Peru as the principal users—not enough fertilizer has been used as yet to affect overall agricultural production significantly. Consumption has gone up from 70,000 tons in 1938 to 340,000 tons in 1956. While this is rather insignificant for 65 million arable hectares, further increases may be looked for.

Asia has increased its fertilizer consumption from a million tons of combined plant nutrients in 1938 to 1.8 million tons in 1956. Seventy percent of the increase occurred in Japan, which has only 0.05 percent of the world's arable land but consumes 6.5 percent of the world's consumed fertilizer. Japan is the third highest consumer of fertilizer per arable hectare, exceeded only by the Netherlands and Belgium. By heavy fertilization, further improvements in irrigation, good cultural practices, and continuous improvements in seed, Japan can grow 80 percent of the food for its 90 million people on 5.1 million hectares.

India is making a substantial effort to improve its facilities for agricultural production through the construction of new irrigation works and new fertilizer plants. India is also moving rapidly on the establishment of a national extension service. However, India's 4.5-million annual net increase in population makes the task of meeting food needs exceedingly difficult.

India is presently using 150,000 tons of nitrogen on 150 million hectares of arable land, as against Japan's 560,000 tons on 5.1 million hectares. The second Five Year Plan of India provides for the construction of four new nitrogen fertilizer plants with a combined annual capacity of about 325,000 tons. If these are completed on schedule, India will have available from domestic production in 1961 about 400,000 tons of nitrogen—a small supply for 150 million hectares.

WORLD FERTILIZER CONSUMPTION
AVERAGE 1949-53, ANNUAL 1938 AND 1955-57[1]

Item[2]	1938	Average 1949-53	1955	1956[3]	1957[4]
World (excl. USSR and China):	*1,000 m.t.*	*1,000 m.t.*	*1,000 m.t.*	*1,000 m.t.*	*1,000 m.t.*
N	2,400	4,000	6,000	6,400	6,700
P_2O_5	3,500	5,600	6,700	7,100	7,100
K_2O	2,500	4,200	5,600	6,100	6,300
Total	8,400	13,800	18,300	19,600	20,100
Europe (excl. USSR):					
N	1,430	1,840	2,600	2,850	2,950
P_2O_5	2,000	2,480	3,040	3,180	3,200
K_2O	1,900	2,550	3,200	3,390	3,500
Total	5,330	6,870	8,840	9,420	9,650
North and Central America:					
N	350	1,250	2,170	2,200	2,340
P_2O_5	700	2,110	2,320	2,380	2,300
K_2O	370	1,340	1,800	2,090	2,100
Total	1,420	4,700	6,290	6,670	6,740
South America:					
N	30	70	110	120	125
P_2O_5	30	90	130	150	150
K_2O	10	30	70	70	80
Total	70	190	310	340	355
Asia (excl. China):					
N	500	640	870	960	1,030
P_2O_5	390	310	370	430	500
K_2O	140	180	420	440	500
Total	1,030	1,130	1,660	1,830	2,030
Africa:					
N	100	140	190	200	200
P_2O_5	80	160	230	220	240
K_2O	20	40	60	60	70
Total	200	340	480	480	510
Oceania:					
N	30	40	40	50	50
P_2O_5	330	490	640	700	760
K_2O	20	30	40	60	60
Total	380	560	720	810	870

[1]For years ending June 30. [2]Preliminary. [3]Forecasts.
Figures for 1955 and 1957, rounded and adjusted for comparisons, from *An Annual Review of World Production and Consumption of Fertilizer, 1956*, and figures for 1938, 1949-53, and 1956 from *Monthly Bulletin of Agricultural Economics and Statistics*, table 1, January 1957, Food and Agriculture Organization, Rome.

The 325,000 additional tons of nitrogen—if they are supplemented with appropriate amounts of phosphoric acid and potash and applied judiciously where water is available—can be expected to produce about 3.5 million additional tons of food grain. This entire amount will be needed to feed the 22 million extra persons born by 1961, the last year of the Second Five Year Plan. India may not apply all this nitrogen on food grains; some undoubtedly will go on sugarcane, tea, and nonfood crops. Thus, India may be expected to improve water availabilities, cultural practices, and seed stocks for crop lands for which fertilizer will not be available. Additional food-grain production from these endeavors may be expected. But these will do little more than provide some small improvement in caloric intake of the people. India is likely to continue as a net importer of food grains for many years to come, the annual amounts varying with the vagaries of the monsoons.

Of the remaining Asian countries only South Korea and the Philippines use any appreciable quantities of fertilizer. Some further improvements in fertilizer use may be expected in these two countries over the next several years. Turkey, Pakistan, the Rice Bowl countries, and Indonesia use very little. Their plans for the construction of fertilizer plants, if realized, are not expected to change present fertilizer use significantly. These countries have balance-of-payment problems which make industrial development difficult; and while this condition prevails, they are unlikely to buy large quantities of fertilizer on world markets. Some increases in food-grain production will occur, but these will probably do no more than meet the food needs of the net increases in population. Indonesia may even need to import increasing quantities of rice in future years.

Africa has increased fertilizer consumption from 200,000 tons of combined plant nutrients in 1938 to 480,000 tons in 1956. This is a small supply for 247 million arable hectares. Moreover, most of this has been used in Egypt and the Union of South Africa. Further increases in consumption of fertilizers can be expected in these and other African countries in the future, but not enough to affect the world food supply significantly. The large net annual increase in Africa's population, together with improvements in the diet, will require additions to the food supply that are unlikely to be met by increased production over the next several years. Therefore, we may expect Africa to draw increasingly on North America for food grains.

Oceania—that is, Australia and New Zealand principally—increased fertilizer consumption from 380,000 tons of combined plant nutrients in 1938 to 810,000 tons in 1956 for a total of 25 million arable hectares. Phosphoric acid makes up seven-eighths of total consumption. Further significant increases in fertilizer consumption may be looked for in Oceania, especially in Australia. There the present rate of application per arable hectare, including permanent cultivated grasslands, is only a small fraction of what it is in New Zealand.

The USSR and Communist China have been excluded from the world and area total for fertilizer consumption and from the arable land figures. Both these countries use considerable quantities of fertilizers but no accurate figures are available. The USSR has about 225 million hectares of arable land, and Mainland China, about 90 million. It is reported that in 1955 the USSR produced 670,000 metric tons of nitrogen for agricultural use, and that for the same year Communist China imported a total of 669,000 tons of fertilizer carriers, both mixed and otherwise, mostly from Western Europe and Japan.

Fertilizer consumption in Mainland China in 1955 is roughly estimated at about 1.5 million tons of fertilizer carriers, which on a plant nutrient basis might be reduced to 300,000-400,000 metric tons. This would be a very small supply for 90 million hectares of arable land. The population of Mainland China—estimated at 600 million—is increasing annually at the rate of about 7.5 million. An increasingly serious food problem is likely to face Communist China in the years ahead, unless much more fertilizer can be made available.

For the world as a whole, agricultural production during the past 3 years has held at only 97 percent of prewar on a per capita basis. For the Free World the percentage is 100. For

(Continued on page 18)

ARABLE LAND, FERTILIZER CONSUMPTION, WORLD TOTAL, BY AREAS AND PER ARABLE HECTARE, 1956[1]

Area	Arable land		Consumption of fertilizer					
			Combined N, P_2O_5, and K_2O		Average consumption per arable hectare			
	Total	Percent world total	Total	Percent world total	N	P_2O_5	K_2O	Combined N, P_2O_5, K_2O
	1,000 ha.[2]	*Pct.*	*1,000 m.t.*[3]	*Pct.*	*Kg.*[4]	*Kg.*[4]	*Kg.*[4]	*Kg.*[4]
World total (excl. USSR and China)	1,037,000	100	19,550	100	6.2	6.8	5.9	18.9
Europe (excl. USSR)	151,000	14.6	9,420	48.2	18.9	21.1	22.5	62.5
Netherlands	(1,060)	(.1)	(459)	(2.3)	(172.5)	(104.5)	(156.0)	(433.0)
Belgium	(1,008)	(.1)	(321)	(1.6)	(81.4)	(91.6)	(145.6)	(318.6)
North and Central America	260,000	25.0	6,670	34.1	8.5	9.2	8.0	25.7
United States	(193,371)	(18.6)	(6,261)	(32.0)	(10.7)	(11.4)	(10.2)	(32.3)
South America	65,000	6.3	340	1.7	1.8	2.3	1.1	5.2
Asia (excl. China)	289,000	27.9	1,830	9.4	3.3	1.5	1.5	6.3
Japan	(5,095)	(.5)	(1,265)	(6.5)	(109.8)	(63.4)	(75.1)	(248.3)
Africa	247,000	23.8	480	2.5	.8	.9	.2	1.9
Oceania	25,000	2.4	810	4.1	2.0	28.0	2.4	32.4

[1]For fertilizer consumption, year ending June 30; figures preliminary.
[2]Hectare = 2.471 acres.
[3]Metric ton = 2,204.6 pounds.
[4]Kilogram = 2.205 pounds.
Figures on arable land from 1955 *Yearbook on Production*, V. IX, Pt. 1, table 1, and figures on fertilizer consumption from *Monthly Bulletin of Agricultural Economics and Statistics*, table 1, January 1957, Food and Agriculture Organization, Rome.

How Our Seed Oils Fare In the Olive Oil Markets

Mr. Stedman recently returned from a trip through the big olive-growing countries—Spain, Italy, Greece, and Turkey. There, he found market opportunities for the U.S. soybean and cottonseed industries, whose oils and other products have made a place for themselves in that part of the world.

By J. W. J. STEDMAN
Fats and Oils Division
Foreign Agricultural Service

OVER THE AGES, olive oil has been favored by cook and consumer in the Mediterranean area. It still is. But seed oils have been used increasingly there, and people have found that they like them too.

All of the big olive-growing countries grow oilseed crops, and all of them produce some seed oil and import some. Import quantities vary, mostly with the olive crop, which, with its biennial cycle, is big one year and smaller the next, barring natural hazards like bad weather, insects, and disease.

For some years, the United States has had a small market in the area for its cottonseed and soybean oils, and looks forward to a big one, as increasing populations and rising standards of living outpace the area's oil production.

Spain

Spain is one of the world's big producers of olive oil, and one of its small users of seed oils. It produces only a little seed oil itself and usually imports relatively little. Recently, it became interested in soybeans, and is doing experimental work on the crop, apparently with some success. It also produces cotton—around 200,000 bales a year—and refines a small amount of cottonseed oil.

The seed oils that Spain imports—all the way from 2,000 metric tons annually to 200,000 tons—it does not sell as such in the stores. These oils are blended with olive oil and sold as olive oil. And the blend has been generally accepted. In fact, in some of the larger cities, its lighter color and clearer appearance have been assets. This acceptance has been something of a surprise. When I was in Spain 3 years ago, many people thought that Spanish consumers would be reluctant to buy anything but pure olive oil.

When he buys oil, the Spanish consumer rarely gets it in tins or other containers under a brand name. He goes to the retail store with bottle in hand and has it filled from a drum. Oil is generally sold this way in other countries of the Mediterranean, too.

Another similarity in the olive industries of the area is the basis on which producers are paid for their crops. It is the same in all the countries except Greece. The common practice is to base the price on the oil content of the olives. In Spain, tests are made about every 7-10 days to determine the content and thus establish prices to farmers. The quality of the oil being produced in Spain is excellent, as it is in all Mediterranean countries this season; the cold winter cut down on Dacus fly infestation. The oil content of the olives, too, is higher than it was last year. The most recent estimate of production this year runs from 375,000 to 380,000 metric tons of edible oil with some indications of an even larger production.

Exports and imports are strictly controlled in Spain, under a licensing system. There is no freedom of trade whatsoever.

Italy

Unlike Spain, Italy has always used considerable quantities of imported seed oils. This year, it will need even more, for its production of olive oil—an estimated 170,000 metric tons—is very low for the second consecutive year. The olive crop is small because of the severe regional damage from the freeze in the winter of 1955-56.

Of all the oilseed crops, peanuts are preferred in Italy because of their high oil content. In addition, the duty on peanut oil is lower than it is on other oils. For example, it is 18 percent on peanut oil and 25 percent on soybean oil.

The Italian Government does not permit the importation of oilseeds, seed oils, or vegetable fatty acids except under license. To get an import license for oilseeds and oils, an importer must make a purchase from the government stockpile of oils; his import license bears a direct ratio to the amount he purchased from the government.

However, the government does permit the importation of soybean meal from dollar areas, including the United States, without license. This comes in duty free, and dollars are made available without limit. Soybean meal is now being imported into Italy at a rate approximating 30,000 tons a year.

Karl W. Opitz

Well-tended grove of oil olives in northeastern Spain. One of the world's big producers and consumers of olive oil, Spain is not often a good market for seed oils.

It is preferred over any meal produced in Italy for poultry, and makes up about 20 percent of the mixed feed prepared for poultry. The toasting process used in preparing soybean meal in the United States is what gives it its preferred properties, I was told. Since 1953 the sale of mixed feeds for poultry and hogs has grown 10 times, and there is a possibility that it will continue to rise in the next 5 or 6 years.

Greece

Greek olive growers, like Spain's, once produced enough to meet the country's oil needs. Even now, exports are permitted in some years, and seed oil imports are not large. In 1956-57, for example, 15,000 metric tons of seed oil was imported. Greece also produces a little cottonseed and tobacco seed oil—probably no more than 18,000 tons.

This year, Greece plans to import around 10,000 tons of cottonseed, mainly for protein meal. The dry weather has caused a feed shortage, and farmers need additional feed to tide their livestock over until the rains come. An increasing quantity of protein supplement is being used in Greece. It is not large now, but possibilities for expansion are there.

Soybean oil is being imported, too. The import duty—17.5 percent—has been suspended until October 31. That oil has been mixed with olive oil, and apparently is well liked. Some members of the olive oil industry are fearful that their business will be cut if soybean oil continues to be imported duty free and sold, as it has been, by the government at a price lower than that of olive oil. But others would like to see a regular quota set up annually for the exportation of olive oil, even though this may imply regular imports of seed oil for domestic consumption.

In the past few years, the exportation of olive oil has been prohibited more often than it has been permitted. The only year in many that any sizable quantity was exported was in 1954, when exports totaled 15,754 metric tons. This year's quota is 5,000 tons—a quantity that Greece probably could maintain without importing any additional cottonseed or soybean oils.

Greece has a good olive crop this year, estimated at around 135,000 metric tons.

The Greek producer does not sell

Author (top right) stands on rock "tub" in olive grove on Greece's Mytilene Island. Tub holds tree fast in heavy rain.

Olive grower on Mytilene Island knocks olives off trees—an emergency measure; olives are usually allowed to fall.

his olives to the crusher, as producers in other countries do. Instead, his olives are crushed on a toll basis, and the oil becomes his property to sell when he sees fit. There is no price regulation. The charge for the toll crushing is set by the government, and the residual cake becomes the property of the crusher, who either extracts the remaining oil or sells it to someone who has a sulfur oil plant. (Carbon bisulfide is used for extraction; hence, the name "sulfur oil.")

Turkey

Turkey differs markedly from the other olive producers of the Mediterranean in its oil production and consumption.

For one thing, it produces about as much seed oil as olive oil and, in some years, a good deal more. This year's production of olive oil—a large crop of excellent quality—is an estimated 70,000 metric tons; that for seed oils promises to be about the same.

Then, oil as such is not so commonly used in Turkey as it is in the other countries. Vegetable "ghee" is a popular product; annual production runs around 16,000 tons. Too, among the villagers, who make up 80 percent of the population, about the only consumption of fats and oils often is what is recovered from the animals that are killed or is yielded from any small quantities of oilseeds that may be crushed in a very primitive way.

As an importer of vegetable oils, Turkey is generally the smallest among the olive producers of the Mediterranean. In the past year, it imported 10,000 metric tons—all cottonseed oil. The government sells the imported oil at such a high price—about 39.3 U.S. cents a pound this year—that domestic oil producers have not opposed imports.

It appears that opportunities are excellent for maintaining a market for about 10,000 to 15,000 tons of cottonseed oil a year. These amounts may increase as manufactured products are made available to the people in the villages. Turkey is making a great effort to industrialize, and it is quite apparent that rural industrialization is picking up speed. That means greater and greater buying power for villagers.

Is U.S. Keeping Its Costa Rican Market?

Despite an overall downward trend in total U.S.-Costa Rican trade, the United States in 1956 maintained its farm exports to Costa Rica at $6.8 million—slightly above the year before and about a third higher than the 1950-54 average.

Shown below are Costa Rica's farm imports from the United States for the past 2 years:

Commodity	1955		1956	
	Quantity	Percent of total farm imports	Quantity	Percent of total farm imports
	1,000 lb.	Percent	1,000 lb.	Percent
Wheat flour	33,258	59.8	35,229	62.4
Wheat	4,779	35.2	11,882	100.0
Rice	43	0.3	3,336	24.6
Corn	9,622	99.9	24,675	99.9
Feeds	4,130	80.5	10,459	67.6
Lard	8,245	83.0	7,705	79.0
Dry whole milk	414	18.3	865	30.2
Beans	3,607	99.4	10,367	71.9

The United States is the chief source of Costa Rica's total imports. But the U.S. share of this market showed a decline in 1956. By contrast, Germany, the Netherlands, France, Italy, Switzerland, and several smaller traders improved their positions in 1956; and imports from Soviet Bloc countries increased 60 percent over 1955.

Costa Rica, a relatively small market, has certain advantages in world trade. Its imports are free from licensing restrictions, and its exchange rate has remained remarkably stable in recent years. These factors make the Costa Rican market an attractive and highly competitive one.

The country's ability both to increase its total imports and to sustain a $19-million trade deficit with the United States is due to the fact that part of these U.S. imports are financed by Export-Import Bank loans and other new investment capital.

Australia's Cotton Industry

(Continued from page 8)

gation, cotton growing is associated with higher costs for water, labor, and greater weed control. Economic expansion in the irrigated areas is also limited by the small size planned for farms in new settlements.

Cotton production in Australia dates back to the 1860's. During our Civil War, Great Britain's Lancashire mills bought Australian cotton because they could get none from the United States. But Australia has never produced more than about 20,000 bales. At the end of the 19th century, cotton production went down because it was unprofitable. Then in the depression years of the 1930's, cotton production was somewhat sidetracked; and during World War II emphasis was on food crops.

At present, there is considerable planning for cotton expansion, but not much progress as yet. The current price support program expires at the end of calendar year 1958. This program has given cotton growers a guaranteed price of 14 pence (13.06 U.S. cents) per pound of seed cotton. The difference between the world price, which the Australian spinner pays, and the support price, which the grower gets, is made up by a cotton bounty.

Thus, whether or not cotton production expands will depend on the level set for price supports after the present program ends. Though farmers are interested in cotton, they are not willing to speculate without some idea of what price they will be able to get; for the machinery needed in preparing the land for cotton represents a considerable investment.

At the moment, Australia's cotton production centers mostly around Rockhampton, Queensland, and is under the direction of the Queensland Cotton Marketing Board. Besides Queensland, some of the northern sections of New South Wales are suitable for cotton. A project now being undertaken in the Northern Territory also offers possibilities for cotton. Private U.S. interests have recently bought a million acres near Darwin. Here they plan to raise cattle and rice, and also experiment with cotton. This could open a vast new area to cotton production.

Acquainting Buyers with U. S. Wheat

By D. J. Novotny
Grain Division
Foreign Agricultural Service

WE KNOW THAT U.S. wheat growers produce sufficient varieties and qualities that foreign buyers *should* be able to buy exactly the kind of U.S. wheat they need. Unfortunately, foreign buyers do not always know this. A recent market development project that brought representatives of the Greek and Italian wheat industries to the United States indicates that the problem largely is one of marketing education and that foreign buyers, having learned about our farm products, are favorably disposed to buy them.

Both Greece and Italy are big consumers of wheat.

Italy uses large quantities of wheat with a high vitreous content in its spaghetti, macaroni, and other pasta products—highly important food items to Italians. Ideally, that is Durum wheat. But Italy does not produce enough. What's more, Durum is generally in short supply the world over. So Italian pasta manufacturers need a close substitute to mix with Durum in order to produce good-quality pasta.

In recent years, the pasta industry has found that the wheat received from the United States has not proved suitable. Yet, we know that, on the basis of recent experiences of U.S. manufacturers, a mixture of good-quality Hard Red Winter wheat and Durum results in highly satisfactory pasta products. Moreover, since it is considerably cheaper than Durum on the world market, Hard Red Winter wheat should have excellent potentialities for Italian pasta manufacture.

The Greek baking industry has had similar experience with our wheat. Greece has now, and will probably continue to have, a shortage of wheat. In addition, much of what it produces lacks sufficient protein content to be suitable in bread-making. Since about 55 to 60 percent of the total caloric food intake in Greece is in the form of bread, it is important that this wheat deficit is met with high-protein wheat from abroad. But Greek importers have been generally dissatisfied with the quality of U.S. wheat that has arrived at their ports in recent years. Here again, we have felt that we have a suitable product to sell.

Thus, from each of these two countries, a team of six specialists representing both importers and manufacturers was recently invited to make an on-the-spot survey of the U.S. Hard Red Winter wheat industry. Both of these market development projects were financed in part by the use of local currency obtained through Public Law 480 sales. While the visitors were in this country their expenses were borne by the Division of Wheat Development, Utilization and Marketing of the Nebraska Department of Agriculture, with the help of the Kansas Farm Bureau Federation, the Kansas Wheat Growers Association, and the Oklahoma Wheat Research Foundation.

The two teams visited farms, eleva-

Prof. Visco of Italy's Institute of Nutrition (on left) examines samples of U.S. wheat in a Nebraska ranchhouse. At his right are Nebraska wheat grower Willard Stoddard and C. H. Kreader of Nebraska Wheat Growers Association.

Greek wheat representatives at the Omaha Grain Exchange, with H. C. Van Houten of the Exchange (at far right). Left to right, N. Triantaphyllides, H. Papaioannon, P. Katsoulis and G. Lianos.

tors, wheat quality-testing laboratories, mills, and bakeries in Nebraska and adjacent States of the Hard Red Winter wheat-producing region. In these areas, the one question farmers and elevator operators most commonly put to the visitors was "Is this the kind of wheat you have been receiving from the U.S.?" In each case our visitors answered politely, "No." They went on to say that, up to now, they had been totally unaware that wheat of such desirable quality could be obtained from U.S. producers!

The Italian team, which came to the United States in October-November 1956, was of course especially interested in observing the suitability of Hard Red Winter wheat for pasta products of the type suited to Italian requirements. Arrangements were made for these visiting specialists to study the experience of American pasta manufacturers in selecting and utilizing various blends of Hard Red Winter and Durum wheat classes.

The Greek representatives, who visited this country in May 1957, were particularly interested in investigating the availability of wheat with a known high-protein content. Such wheat could be blended with lower-protein wheat grown in Greece to produce more suitable flour for bread-making. The Greek delegation studied the experiences of American millers in blending U.S. Hard Red Winter wheat with various soft wheat varieties.

Both the Italians and Greeks expressed keen interest in the potential uses of our Hard Red Winter wheat. The team members mentioned repeatedly the fact that the wheat they had seen on their visit was of considerably higher quality, insofar as protein and vitreous content were concerned, than any that their countries had imported recently from the United States. In each case, the visitors were particularly interested in the possibilities of purchasing U.S. Hard Red Winter wheat on the basis of variety and area of production.

Both groups felt that the recent revision of U.S. Official Wheat Standards would help greatly to make U.S. wheat more acceptable on the world market than it has been in recent years. But, since the new standards have no provision as to protein content, the Greek delegation felt that an official guarantee of minimum protein content would also be necessary to assure their importers of receiving the desired quality of wheat. Prior to leaving this country, the Greeks met with USDA officials, and were told that, under certain conditions, such service could be obtained.

Upon returning to their countries, members of the two teams were to disseminate information concerning the quality and suitability of U.S. wheat, and to help gain consumer acceptance for products made from such wheat. Agricultural attachés in each country were to assist the delegations in planning this campaign.

Although no report from Greece is yet available, the following are translated excerpts from the March 1957 issue of *Molini D'Italia*, an Italian miller's journal.

". . . It is therefore evident that the utilization of U.S. Hard Red Winter wheat represents a concrete and positive possibility of improving our second quality pasta.

". . . There are several varieties of wheat that go under the Official Grain Standards of the U.S. for Hard Red Winter wheat. From our experience with the Italian consumer's standards, we are convinced that only a few of these varieties might prove satisfactory for Italy.

". . . A few years ago, when U.S. Durum wheat production fell below normal, the American pasta industry began looking for wheat to blend with Durum—our very same problem today. Good results, at least for American pasta standards, were obtained with Hard Red Winter wheat.

". . . A final judgment, however, can only be formulated after completion of the analysis of the large samples sent to the Nutritional Research Institute with particular reference to pasta manufacturing tests, cooking time, resistance to cooking and mixture percentages."

Markets are not developed overnight. Experiences and comments of both the Greek and Italian groups, for instance, show only that a potential market outlet does exist. Many problems still remain to be solved before the United States can enter these markets. In Italy, the economic feasibility and consumer acceptance must be clearly demonstrated to pasta manufacturers. Meanwhile, other outlets must in turn be found for Italy's surplus of soft wheat. Importers in both Greece and Italy must be given the opportunity to receive the quality and specific variety of wheat which they believe is suitable.

Market development efforts can do much to uncover these and other potential outlets for U.S. wheat. Yet, in the final analysis, the real effect of such efforts will depend on the ability of U.S. exporters to make a potential market a real one.

Argentina Improves Its Trade Balance

If Argentina can keep its meat exports up and its import level down during the rest of 1957, its trade deficit for the year will be considerably below the $184 million of 1956. And that 1956 deficit itself represented a $60-million cut from the deficit of 1955.

The first quarter of 1957 showed the deficit for that period down to $19 million compared with $57 million the year before. Both meat and grain exports moved ahead of those for the same period of 1956. Meat accounted for $62 million as against $54 million; grain, for $70 million as against $60 million.

Argentina, exporting much the same agricultural items as the United States, ranks as a powerful competitor for the markets of the United Kingdom and other countries of Europe. From these sales of agricultural commodities to Europe came most of its payments surpluses in 1956 and early 1957. Thus it has tended to make most of its purchases of other goods in that area.

Argentina's principal trade deficits, on the other hand, are with the United States, Venezuela, and Brazil. It is making every effort to increase its sales to these countries, for it needs dollars to buy from them the machinery, petroleum products, and other goods necessary for developing its economy.

New Bibliography

EUROPEAN COOPERATION IN AGRICULTURE

Efforts to deal with the complex production and trade problems of Europe's agriculture in the past three decades, and especially since the war, have given rise to many joint policy decisions or actions between governments and to a great volume of literature. Recently, references to these were brought together in a bibliography when the Research Institute of the German Society for Foreign Policy published *Issue 11* in its series of bibliographies of its "Europe Archive."

A summarizing introduction by Dr. W. Schlebitz ranges over the whole field of European agricultural cooperation both before and after the war. It is a concise account of the most important efforts and works in this area and deals not only with government cooperation in the various international organizations but also with cooperation among private agricultural groups, such as the International Federation of Agricultural Producers and the European Agricultural Commission.

The bibliography not only furnishes exhaustive information concerning documents, books, articles, treaties, and agreements but also gives an account of the negotiations pertaining to these documents, including a list of the various contributors to discussions in these conferences and meetings. The bibliography is given in three parts—(1) documents of the various governmental organizations and conferences, (2) documents of nongovernmental organizations, and (3) general works, such as books and articles, on the subject under review. In each case, the listings are given in the language of the country of publication—English, French, or German.

The 88-page bibliography was published in January 1957, under the title *Die europäische Zusammenarbeit auf dem Gebiet der Landwirtschaft—unter besonderer Berücksichtigung der Tätigkeit internationaler und europäischer Organisationen,* by Forschungsinstitut der Deutschen Gesellschaft für Auswärtige Politik, Frankfurt, Germany.

All of the U.S. Barcelona exhibit, including the pavilion, will be demounted for use in future trade fairs. *Below,* soybean oil flows in a great glass ball.

U.S. Exhibit Wins Awards at Barcelona

The market promotion exhibit of U.S. agricultural products walked off with two first prizes at the 25th International Samples Fair in Barcelona this summer. The Barcelona Association of Manufacturers' Representatives and Radio Barcelona judged it best in design, operation, and overall general excellence. This exhibit appealed especially to sidewalk superintendents who enjoy watching other people do things. Thus the staff of the U.S. exhibit promoted cotton by a continuous fashion show; soybean oil, by frying potato chips and passing them around; dairy products, by producing recombined milk and ice cream on the spot; poultry, by cooking frozen poultry; grain, by demonstrating cake mixes.

Below, U.S. fried chicken delights Spanish soldiers. *Right,* Cosmopolitan models show cotton fashions. *Above,* youngsters enjoy recombined milk.

PEOPLE IN THE NEWS

Triantaphyllides Tours With Greek Wheat Team

Nicolas Triantaphyllides, Senior Agricultural Assistant at the American Embassy in Athens, has just completed a tour of the Hard Red Winter wheat areas of Nebraska, Kansas, and Oklahoma. He acted as official interpreter for the Greek wheat delegation which visited the United States under a market promotion agreement between FAS and an agency of the Nebraska Department of Agriculture. (See page 15).

Mrs. Triantaphyllides joined her husband in the United States. Their one-word description of their first trip to the United States was "wonderful." They were particularly impressed with the spirit of responsibility the older generation conveys to the younger generation on U.S. farms. They were pleasantly surprised to find youngsters 10 to 14 years old in complete charge of complicated farming operations.

Mr. Triantaphyllides was born and educated in Athens. He is a graduate of the Athens Greek-American College and the Superior School of Agriculture. He has served U.S. agriculture at the American Embassy for the past 10 years.

W. D. Termohlen Honored by France

W. Dewey Termohlen, U.S. Agricultural Attaché in Japan, was recently awarded the medal of the Legion of Agricultural Merit in the rank of Commander by the French Government for his distinguished services in advancing the poultry industry in France. Armand Berard, French Ambassador to Japan, presented the award at his Tokyo residence.

Mr. Termohlen was President of the World Poultry Science Association from 1948 to 1951 and helped the French Government to sponsor the ninth World Poultry Congress in Paris in 1951. He was awarded the rank of Chevalier in Paris in 1949 for his work with the French Government and the French poultry industry.

Reese Replaces Berg In Denmark

Elmer A. Reese has been appointed to succeed Sherwood Berg as U.S. Agricultural Attaché to Copenhagen, Denmark.

Mr. Reese has worked for U.S. agriculture for many years in Washington, D.C., and overseas. His foreign assignments have included posts in Helsinki and Stockholm. He was educated at the University of Minnesota, where he received both a bachelor's and a master's degree in science.

Sherwood O. Berg, who has been U.S. agricultural attaché to Copenhagen since June 1954, has left to take over one of the most important agricultural economic posts in the United States—head of the Department of Economics at the University of Minnesota, to succeed Dr. O. B. Jesness.

Taking up this post will mean a double homecoming for Dr. Berg—to his home State and to the college where he received his Ph.D. in agricultural economics and worked as a research assistant.

Fertilizer Situation

(Continued from page 11)

the Free Far East the comparable figure is 95. If Mainland China were included the figure would be lower. For the United States the comparable figure averages at 110, and for Canada somewhat less, though it is estimated at 110 for 1956-57.

Conclusion.—Although agricultural production in the Free World on a per capita basis is about the same today as 20 years ago—and has thus kept pace with population growth—the increases in production, largely due to fertilizer, have been unevenly distributed. As a result, we now have large surpluses in North America and large deficits in the Far East.

In prewar years the Far East had a net surplus of 2 million to 3 million metric tons of food grains. In recent years it has had a net deficit of 5 million to 7 million tons. The Far East is a critical food-problem area, and this condition is likely to grow worse in the years ahead. So far as can be seen at this time, the Far East peoples and governments do not now have, nor are they likely to have for many years, the financial resources with which to build the fertilizer plants required. And without these, they cannot increase fertilizer consumption sufficiently to meet their increasing food and fiber needs.

West Germany

(Continued from page 4)

dustrial commodities have been liberalized on a large scale. And they will no doubt largely disappear with general convertibility of currencies.

Even now, as a result of the functioning of the European Payments Union—clearing union for transactions within Europe and certain affiliated overseas territories—the bilateral agreements inside Europe have lost much of their bilateral character and resemble more the traditional type of agreements on commerce and navigation between countries.

On the other hand, the strictly bilateral trading character of agreements between Germany and countries outside the European Payments Union, including some dollar areas, persists. The general provisions of these agreements are to the effect that trade between Germany and the country concerned should aim at a certain total on both sides, with due consideration given to other payments between the two countries. In many cases, the commodities to be traded are also mentioned, with or without stipulation of quantitative or value goals to be aimed at by the two countries.

Export Aids

The last relics of the export aids, under the "soft commodities regulation" (Weichwarenregelung), have been abolished, effective March 31, 1957. The step-by-step abolition of this system finally left in effect only the "milk to the Army—honey" regulation. The dollars earned from sales of high-quality milk to the U.S. Army (by the "MOHA" dairy in Frankfurt) were sold at a premium to importers for honey purchases in the dollar area. Through this system the milk "exports"—incidentally, German authorities do not consider deliveries to the Army as exports—were subsidized at the expense of (a) larger possible imports of honey or (b) the consumer who paid a higher price for the honey. This system was once widely applied in a similar manner for a series of commodities. On the export side it ran out on March 31; on the import side, on June 30.

TRADING POST

New Zealand Bakers Favor Thompson Seedless Raisins

U.S. Thompson seedless raisins are popular with New Zealand bakers and biscuit makers because of their quality and adaptability to baking machinery. New Zealand distinguishes between industrial and table raisin varieties when issuing import licenses. Licensing officials believe that 1957 Thompson seedless imports from the United States will total more than 600,000 pounds. One import license has already been granted for 500,000 pounds.

Chile Fighting Foot-and-Mouth Disease

South Central Chile has had an outbreak of foot-and-mouth disease. The affected areas have been quarantined to stop it from spreading.

Chile has a shortage of beef and must buy large quantities from Argentina. Most of the imports are slaughter cattle which are brought live over the Andes. If the foot-and-mouth disease is not controlled, the shortage will become even more acute.

U.S. Rice Exports Expand Sharply

U.S. rice exports for the August-March period of the current marketing year—totaling 18.3 million bags (100 pounds)—were almost 2½ times those of the corresponding period a year earlier and 60 percent more than the full marketing year 1955-56. India was the principal importer and the Republic of Korea was second. Indonesia, the Republic of Korea, Turkey, and Surinam—all taking substantial quantities this year—did not import any rice from the United States last year. Shipments to Japan have declined from about 2.4 million bags last season to only 93,000 bags so far this season.

Surinam Ups Cigarette Duty

Surinam has increased the import duty on cigarettes from 1.25 cents per cigarette plus 37 percent ad valorem to 1.75 cents each plus 50 percent of the value. Surinam imported about 27 million cigarettes from the United States in the past 2 years.

Czechs and Russians To Get Uruguayan Meat

The Soviet Union has contracted to buy from Uruguay 4,000 metric tons of beef and an equal amount of mutton according to trade sources. Czechoslovakia is also expected to purchase 3,000 to 5,000 metric tons of meat from Uruguay this year.

Argentina Increasing Exports of Tallow

Argentina's tallow exports have expanded sharply since the removal of export restrictions. In the first 2 months of 1957 shipments totaled 15.3 million pounds, in contrast to 130,000 pounds during the same period a year ago. Chief markets for the increased exports were the United Kingdom, the Netherlands, Chile, Cuba, and Peru.

Egyptians Smoking More American-Type Cigarettes

Demand for American-type blended cigarettes in Egypt continues to rise. In 1956 they accounted for 50 percent of the total output, compared with 42 percent in 1954. Demand for filter tips also was up last year, but a shortage of filter materials limited output to some extent. Oriental cigarettes continued to decline in popularity and straight flue-cured brands remained on the level of the past few years.

UNITED STATES
GOVERNMENT PRINTING OFFICE
DIVISION OF PUBLIC DOCUMENTS
WASHINGTON 25, D. C.

OFFICIAL BUSINESS

PENALTY FOR PRIVATE USE TO AVOID
PAYMENT OF POSTAGE, $300
(GPO)

If you do not desire to continue receiving this publication, please CHECK HERE ☐; tear off this label and return it to the above address. Your name will then be promptly removed from the appropriate mailing list.

India Promotes Tobacco Exports

The Government of India is actively promoting tobacco exports, according to an item in the Journal of Industry and Trade of India. The item listed four promotional activities. They include encouraging the Indian Leaf Tobacco Development Co. Ltd. to increase its purchases; selling 2,000 tons (4.4 million pounds) of tobacco to the Soviet Union through the State Trading Corporation of India; persuading the tobacco monopoly of Czechoslovakia to take a trial order of 150 tons of Indian tobacco with the expectation that other orders will be forthcoming if the trial order proves satisfactory; and arousing interest in Indian tobacco in Egypt.

New Association Will Promote Lard in U.K.

The U.S. Packers Provision Agents Committee has been formed in London to promote the interests of U.S. lard importers who represent U.S. packers in the United Kingdom. The organization will work closely with the U.S. meat industry. It will take over many of the functions of the Lard Importers Association, a wartime organization that disbanded about a year ago.

Nicaragua to Get New Slaughter Plant

A $700,000 slaughter plant will begin operating this summer at Managua, Nicaragua. It is the first plant in Nicaragua where fresh meat can be produced, processed, and cured under modern sanitary conditions. Formerly animals have been killed out-of-doors or in small plants for sale and consumption within a short time.

Future plans for the new plant include adding facilities for freezing and canning meat for export. Nicaragua produces more beef than is needed for domestic consumption and has about 30,000 cattle available for export each year.

New Zealand Sending More Beef to Japan

Japan is buying more beef abroad and New Zealand is becoming a major supplier. During March, April, and May, Japan received shipments from Auckland and Wellington—one consignment was for 600 to 700 metric tons. In 1956 New Zealand exported only 46 metric tons of beef to Japan.

Beef is on Japan's "automatic approval" list of commodities which Japanese importers can buy from any country without foreign exchange allocations from the government.

Large Almond Crop Forecast for Portugal

The 1957 Portuguese almond crop has been forecast at about 5,800 short tons (shelled). This would be nearly double last year's harvest of 3,000 tons and 500 tons above the 5-year average (1950-54). The bloom in February was heavy, the subsequent "set" was good, and the weather has been favorable, with plentiful rains and no frost.

U.S. Palm Oil Imports Down

U.S. imports of palm oil in 1956, estimated at 13,572 tons, were a third less than 1955 and only 8 percent of the prewar average. Over 93 percent of the total came from the Belgian Congo, the major U.S. supplier in the postwar period. Indonesia, with average shipments of over 100,000 tons a year to the United States before the war, dropped to 738 tons in 1956.

In the prewar period, the United States was a net importer of vegetable oils for food use, but the tremendous growth of the soybean industry has practically eliminated this demand. Today palm oil is mainly used in the steel industry, which has been drawing supplies from U.S. Government stockpiles, thus reducing imports.